ABSTRACT

The invention provides a method for detecting a hapten in a sample comprising the steps of: a) providing a sample potentially containing the hapten; b) providing a pre-determined amount of a first moiety, said first moiety being bound to a signaller and separated therefrom by a first linker, which first moiety is either: i) a binding partner that specifically binds to the hapten of interest, or ii) the hapten of interest or an analogue thereof; wherein said signaller is a macromolecule or a nanoparticle providing high mass signal; c) providing a flow of a) and b) separately or together to an immobilised second moiety, said second moiety being bound to the surface of a sensor and separated therefrom by a second linker, which second moiety is either: i) a binding partner that specifically binds to the hapten of interest, or ii) is the hapten of interest or an analogue thereof, providing that when the first moiety is a binding partner, the second moiety is a hapten or hapten analogue and when the first moiety is a hapten or hapten analogue, the second moiety is a binding partner; and d) detecting the amount of first moiety bound to second moiety.